

EARNINGS MANAGEMENT IN SMALL AND MEDIUM FIRMS IN INDIA – AN EMPIRICAL ANALYSIS OF FIRM-SPECIFIC INFLUENCES

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ABSTRACT

The purpose of this study is to provide some empirical evidences about the existence of earnings management in small and medium firms in India and the firm-specific factors affecting that. In this paper, earnings management has been measured following Jones (1991) model. Five independent variables, namely auditor's reputation, proportion of independent directors in the board, quantum of bank loan, proportion of institutional holding and ESOP were used in this study. The dependent variable was discretionary accruals. Panel data regression, enter method and stepwise regression method were used to analyse the relationship of the variables. Almost all independent variables were found to be significant except ESOP. While auditor's reputation and institutional holding were negatively correlated with discretionary accruals, bank loan and independence of the board were positively correlated. The entire study was based on 331 firm years data of small and medium Indian firms from 2013 – 2018.

KEYWORDS: Earnings Management, Discretionary Accruals, Jones Model, Auditor's Reputation, ESOP, Independent Directors, Institutional Holding, Bank Loan

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1. INTRODUCTION

Over the years, earnings management has been a contentious issue in the literature of Accounting and Finance. Some have defined earnings management as the rational choice of accounting policies by managers which sub serves certain specific interests. Earnings management, as believed by many, is a tool for manoeuvring reported income by managers either to attract a favourable investor's response in financial market to prevent plummeting of stock prices or to trigger a higher expectation of investors before an IPO. Some opines that earnings management is creative uses of accounting policies and guidelines to understate or overstate reported income. The earnings management definitions have been classified as black, grey and white. The black style indicates the manipulative feature of earnings management, ignoring any creative aspect of it. On the contrary, the white family of definitions indicate the intelligent aspect of it, ignoring the manipulation areas. The grey cluster of definitions majorly focuses on the intelligent part of earnings management but in tandem with the intention for manipulation.

Following the literary evidence of influence of some firm-specific factors on earnings management, we were intrigued by the issue and the nature and extent of their influence on earnings management. Bergstresser and Philippon (2006) have established the influence of ESOP on incentivized managers that triggers earnings management. They have shown the doubling of ESOP values in USA till 2005. (Healy, 1985 and Halthausen, 1995) have mentioned about the influence of governance related factors on earnings management while Joe and Kim(2007) have drawn our attention towards disclosure quality and earnings management. Almost all of these authors have pointed out the IPO underperformance as a concrete evidence of earnings management in pre-issue

period. In India, there has been plethora of IPOs in the last 18 months and most of these firms belong to small and medium category with respect to asset-base, turnover and their representation in leading stock market indices and in terms of analyst following. Figure 1 shows some glimpses of the IPO underperformance in last 18 months.

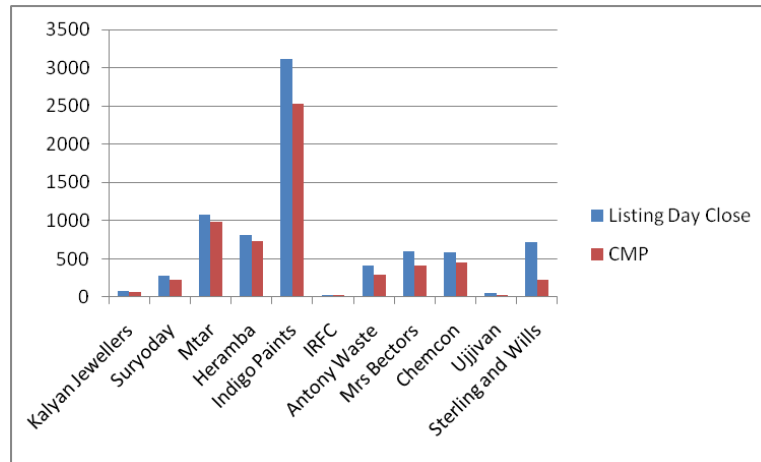


Figure 1: IPO Underperformance in Recent Period in India.

Source: Authors own construction from NSE and moneycontrol.

On the other hand 30 percent of the IPOs have generated persistent gains while 50 percent have persisted at loss-levels and about 20 percent firms have generated either moderate return or marginal returns. The information provided above is based on 26 IPOs in India in during 2020 and till May 21. Including marginal and moderate returns with the underperformers, almost 50 percent have shown low or no performance. An insightful analysis shows that even during the recovery from the first wave of covid, while some of them recovered strongly, the underperformers did not show any sign of a steep rise.

Audit quality has been in focus in the literature of earnings management as well. It is widely believed and researched about whether the Big4 auditors or the Big6 auditors can ensure the audit quality and quality of disclosure. We have taken Big4 auditors as Deloitte, PWC, E&Y and KPMG and have observed 100 firms in Indian context out of which, 40 percent are positioned in the leading indices like SENSEX and NIFTY while others are picked from broad-based BSE 100 index. We have tried to capture a snapshot of the proportion of big firms and other firms who have the Big4 auditors. We have presented this as a matrix in Figure 2. The matrix reveals that 75 percent of medium and small firms do not have the Big4. It is important to mention that 20 percent of the big firms with non Big4s, have auditors who may not be counted under big4 but they have a very notable reputation and history.

Table 2: Big4 Matrix

Category of Firms / Auditors	Big4	Other Auditors
Big Firms	15	25
Other Firms	15	45

Previously we have studied the effect of some firm-specific variables on the level of earnings management in the big firms in India. The term big firm denoted the firms which are included in the leading stock market indices in India and which have more analyst's following (Dhar *et al*, 2020). In the backdrop of abovementioned facts, it became important for us to thoroughly observe the influence of firm-specific factors on earnings management in case of small and medium firms

in India. Based on the eminent literary evidences and our observation about Indian markets and as an extension of our previous studies in the area of earnings management we have analysed the effect of bank loan, block-holding, board characteristics, audit quality and employee stock ownership plans on EM. The reason of including ESOp in case of small and medium firms was that some IT firms with very high growth potentials may include this ntype of remuneration schemes in line with international practices.

In Indian context the studies like (Chatterjee,2020 : Sarkar *et al*, 2008) are remarkable and these studies have unravelled the importance of analyzing the board characteristics on earnings management. Our study is based on a comprehensive approach with an attempt to look at the combined effect of all the five firm specific factors on the level of earnings management. The entire study is presented in four major sections.

2. LITERATURE REVIEW

The salient literature on earnings management and discretionary accruals encircles the contentious conceptual issue of existence and measurement of earnings management and the ways and means of earnings management. A wide range of papers have introduced different models to measure the extent of earnings management. Some papers centres around the discussion about shortcomings of existing models regarding earnings management and some of them proposes better versions of existing models or attempts to introduce new models or tries to look at the entire issue of modelling from different perspectives. Another range of literatures attempts to find out correlation of earnings management with firm specific factors like firm size, audit quality, content and readability of annual reports, frequency of disclosures, executive compensation packages and stock based executive compensation packages and many others. Another group of papers search for the existence of timing of earnings management with IPOs and SEOs. Some papers also look into the contentious issue of specific practices of earnings management at different earnings levels of the firm which has a bearing on the value of executive compensation. In this section, we have tried to unfold some seminal works keeping in mind the impossibility of encompassing many or all the remarkable works in one section of a paper of ours. The entire literature can broadly be classified in seven different categories, namely i) earnings management and investor's protection ii) earnings management and corporate governance and auditors iii) earnings management of different periods iv) earnings management and financial market activities v) earnings management from the managerial perspective and vi) analysis of the accruals.

Halthausen(1995) extended the line of research of Healy (1985) as an effort to explore the relationship of governance factors with the intensity of accruals. He has reiterated in his paper, the choice of accruals being the choice of accounting policies which signals towards a research area as when a manager would choose to resort to policies which fosters accruals. The authors, in this paper, have conducted statistical tests to measure whether the managers tend to manipulate accounts at higher threshold levels of their executive compensation and have found out that although the accrual construction is visible around the upper threshold, but they have found confounding result as to whether income deflating earnings management is practised around the lower region of the performance based compensation package. They have also found visible relationships of accruals and various governance factors.

Guidry et al (1999) in their famous paper have presented the entire issue of earnings management in a different dimension altogether. They have raised the question on the validity of research on earnings management with the firm level data as that is an aggregate of several firms which may consist of several business units and so there may be offsetting effects which may invisibly creep in the research of earnings management. To avoid this, they have emphasized

on business unit level data and have conducted their research with 179 business- unit year data. With the firm year data of business unit, they, as shown in the paper, have increased the power of the test to detect earnings management practices. After this they have tried to show the congruence of results with Healy (1985) in showing that managers do engage in earnings management to decrease reported income once the level of income is reached where they qualify for performance linked compensation. Not only this, but this study also extends to see the effects of earnings management in different levels of income.

Bartov, Gul and Tsui (2001), in a famous study have examined the efficiency of five well known models in capturing earnings management and have established the exhalation of cross sectional models over time series models. They have referred to other studies which have endorsed that that the models to detect earnings management, in most of the cases, do not have clarity of segregating the non-discretionary element of accrual from the discretionary part. The model criticism also unfolds that models based on time series can detect discretionary accruals in case of very high and very low performance levels. The authors have shown superior power of judgemental samples to detect earnings management than a purely random sample. They have then tried to capture the correlation between earnings management and qualified auditor's report. Drawing from their research, it remains as an important information to us that a sample drawn out of expectation of earnings management may considerably infer a direct linkage between earnings management and quality of auditor's report.

Bergstresser and Philippon (2006) in their research have talked about an interesting aspect of earnings management. As per them, the earnings management has a direct correlation with the incentive levels of managers which points out that the practice of discretionary accruals is going to be more prominent in those companies where incentives of the CEOs are more. The authors through rigorous research have been able to find that managers exercise their options and they offload their holding of the company's stocks much more during the times of high earnings management.

Hoje Jo and Yongtae Kim (2007) in an extensive research have pointed towards a new area in the literature of earnings management. They have enquired about the existence of any correlation of earnings management and the number of disclosures and quite as expected they have found that they are related to a great extent. They have opened another vista of discussion in this area by researching on the relationship or the poor performance after issue and quantum or frequency or quality of dissemination of information. They have mentioned about 'Transparency reducing disclosure' which, as the authors have explained, is the tendency of excess disclosure before any forthcoming issue so as to trigger a response in the minds of the investors. In their paper they have clearly pointed out that in such cases, the performance remains bad after the issue period.

This section itself makes a solid foundation for our paper as we have put forth a sincere effort in searching for the extent of earnings management practiced in other than top firms in India and then have looked into the relationship of earnings management with as many as six firm specific factors. This itself explains the robustness of this study which is presented in the forthcoming sections.

3. SAMPLING, DATA AND COMPUTATION OF EARNINGS MANAGEMENT

3.1 The Sample, Data and the Descriptives for the Jones Model

In this study, we have chosen 354 firm years data collected as a random sample from listed firms in India except those which have found a place in major indices. After a basic outlier treatment we have kept 331 firm years' data. The sample

has excluded the banks and FIs as the Jones (1991) model cannot be applied on them. The entire data consists of the value of the change in current asset, current liabilities, Cash and Depreciation, Property-Plant and Equipments, Revenue and total asset of the previous year which is the lagged asset. Lagged asset has been used to normalize all other values.

The final sample which was put to calculate TA and DA as per Jones (1991) model, may be summarized with the description which is represented in Table 3 while Figure 3 reveals the correlations among variables. The entire model including TA, DA and NDA have been explained in the next section. These abbreviations at and for Total Accruals. Discretionary Accruals (proxy for earnings management) and Non Discretionary Accruals.

Table 2: Data Descriptives for variables used in Jones (1991) Model for Computation of Total Accrual (TA)

Variables	Variables Description	Min	1 st Qu	Median	Mean	3 rd Qu	Max
Δ CA	Change in CA	-36467.00	-765.20	38.66	-406.45	315.63	38948.83
Δ CL	Change in CL	33951.67	-517.91	0.76	-269.41	222.79	26126.30
Δ Cash	Change in Cash	12463..000	: 145.412	2.895	-45.530	125.377	11696.130
At-1	Lagged Asset	349.6	2853.4	8253.8	23439.8	23747.5	295140.0
1 / At-1	Reciprocal of Asset Normalized	0.0407332	0.0001514	0.0001954	0.0001679	0.0004987	0.0653168
Δ Sales	Change in Sales	-81141.0	-489.9	1919.5	2289.6	4569.0	197744.6
Δ Sales N	Change in Sales normalised by lagged asset	-2.7528	-0.0913	0.0029	0.0278	.1318	5.7307
PPEN	Property Plant & Equipment normalized by lagged asset	0.001325	0.102683	0.216958	0.262556	0.337967	.52378
TA	Total Accrual	:-1.18183	-0.07143	:-0.01132	-0.02070	0.03815	1.1404

Source: Author's own construction from the output of R.

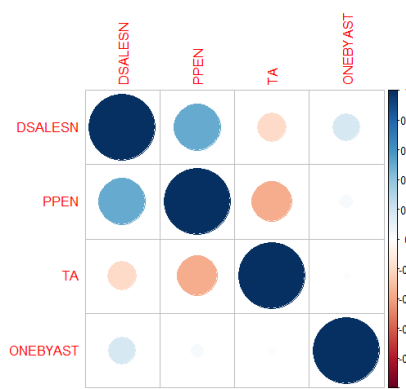


Figure 3: Correlation among Variables

3.2 Model used to Measure Discretionary Accruals (DA)

There are several models used to measure earnings management. The extent of earnings management is measured through discretionary accruals which is a proxy variable. The model also uses that part of long term debt which falls due in immediate future. This item adjusts for any influence of long term debt which inflates the current liability part. We have excluded this field due to unavailability of proper data in all cases. The model starts with calculation of TA, the total accrual by the following equation:

$$TA_{i,t} = (\Delta CA_{i,t} - \Delta CL_{i,t} - \Delta Cash_{i,t} + \Delta STD_{i,t} - \Delta Dep_{i,t}) / A_{i,t-1}$$

The meaning of the variables have been described in Table 3. After TA is computed, it is divided by the previous year's asset value. This is done for the purpose of normalization which is required to make the data comparable as per the model itself.

Once TA is calculated then TA is expressed as a function of three variables, namely Lagged Asset, Change in Revenue or Change in Sales and Property Plant and Equipment. All these variables have to be normalized using lagged assets. For normalizing the lagged asset, the reciprocal is taken. They are represented as Δ Sales N, PPEN, $1/A_{t-1}$.

In the next step, a regression is formed; taking TA as dependent variable and Δ Sales N, PPEN, $1/A_{t-1}$ as independent variables. In this regression the standardized coefficients are taken as all data are normalized. The coefficients of the three independent variables are then recorded for further computation. Then the actual values of Δ Sales N, PPEN, $1/A_{t-1}$ are multiplied with the fitted coefficients. By doing this what we get is the Non Discretionary Accrual (NDA). The difference between the Total Accrual and the Non Discretionary Accrual is the Discretionary Accrual. The entire process is being presented in equation form as follows.

$$TA_{i,t} = \alpha_0 + \alpha_1 \times (1 / A_{i,t-1}) + \alpha_2 \times (\Delta REV_{i,t}) + \alpha_3 \times (PPE_{i,t}) + \varepsilon_{i,t}$$

$$Estimated NDA^2_{i,t} = Estimated \alpha_0 + Estimated \alpha_1 \times (1 / A_{i,t-1}) + Estimated \alpha_2 \times (\Delta REV_{i,t}) +$$

$$Estimated \alpha_3 \times (PPE_{i,t}) \dots \dots \text{equation (iii)}$$

$$Estimated DA^2_{i,t} = TA_{i,t} - Estimated NDA^2_{i,t} \text{ equation (iv)}$$

3.3 Computation of DA in Sample Firms in India

Total Accrual (TA) was calculated as per equation (i) as shown above and then the regression was set as per equation (ii) and the regression coefficients were recorded. For the panel data regression we have used ordinary least square (OLS), fixed effect (FE), random effect (FE) and first difference (FD) method. The FD was used keeping in mind that in case of a slightly skewed distribution of one of the variables under observations, FD would adjust for that. The entire summary of the results is presented in Table 4.

Table 3: Panel Regression Results for Computation of DA

Panel Data Regression Output for Computation of DA.					R ² Values (adj)
	Intercept	$\Delta REV_{i,t}$	$1 / A_{i,t-1}$	PPEN	
Coefficients	α_0	α_2	α_1	α_3	
OLS	.0317891	-.0071584	14.1669	-.2167715	.13
FE		-.010567	6.543438	-.269997	.017
RE	.0317891	-.0071584	14.1669	-.216771	.1306
First Difference	-.0015335	.0085882	23.4019229	-.3365614	.1797
Source: Author's own construction from the output of R					

The above results show that the first difference model is most acceptable. The OLS and Random effect models have generated almost similar results while the fixed effect model in our case was not appropriate for acceptance. Hence, NDA was then calculated as per the following equation:

$$NDA_{i,t} = 23.4019229 \times (1 / A_{i,t-1}) - 0.0085882 \times (\Delta REV_{i,t}) + -0.3365614 \times (PPE_{i,t})$$

Existence of DA once found out in the sample firms, we in the next section, have tried to explain the factors which influence DA. All such factors have been exclusively discussed.

4. THE ROLE OF FIRM-SPECIFIC FACTORS ON DA

4.1 The Firm-Specific Variables and their Expected Impact on DA

As mentioned earlier, we have enlisted five firm specific variables to observe their impact on earnings management. In this section we would describe the factors and their expected impact on DA. In the next section we would test the actual impact with the help of regression.

(a) Bank Loans

As evidenced from literature, firms under some sort of external scanning would be less proficient in making earnings management. Suppose if a firm has short term or long term bank loan, then the financial reports would be periodically examined by the banks. Not only at the time of applying for loans but also as short term loans are often rolled over to the next period from another, the financial documents will also be under constant examination by the bankers. In this situation the extent of earnings management must be reduced. On the contrary, in case of small and medium firms, there may be income inflating discretionary accruals to secure more loans. As our study is specifically with the small and medium firms, we expect a positive relation of bank loan and DA. The normalized value of total debt is denoted by TDEBTN variable in our study.

(b) Institutional Holding

This is also evidenced from various literatures that a firm will have less freedom to construct accruals at the managerial discretion if there remains institutional holding of stocks by FIIs and DIIs. This is so because as owners of a substantial stake in the company and also as having specialized financial knowledge, these companies would oppose anything that may create risk for them in the long term or anything that serves the vested interest of a specific cluster of stakeholder, say CEO or managers with stock option. We expect a negative relation of institutional holding with DA. The institutional holding pattern as percentage is denoted as IHPP in our study.

(c) Employee Stock Ownership Plans

Stock options provided to the managers bear a direct impact on the intention of the manager to construct accruals. In recent times as mentioned in our previous sections, companies often come up with employee's stock ownership plans or ESOP. ESOPs are highly linked with performance of the managers. To maximize their own wealth, the managers always may try to manipulate the reported income. Ideally this variable would bear highly positive relationship with DA. The debatable point is that in the family of small and medium firms, there are a handful number of firms which offer ESOP. So in our study, we expect to have a positive relationship with this and DA but the coefficient value may be small and may not be significant at higher confidence levels. We have the variable named ESOP in our study for this.

(d) Independent Directors

As mandated by the Companies Act, every listed public company should have at least one third of the board of directors as independent directors. One of the major listing requirements of the companies is that the company should have an Audit Committee. We expect that the more is the independence of the board, the more is the fairness ensured in financial reporting and disclosures. This means that we can expect a negative correlation between the independence of the board and DA. The percentage of independent directors in the board is denoted by INDRCTR variable in our study.

(e) Auditor's Reputation & Audit Quality

It is expected that the audit firms which are of worldwide presence and reputation would ensure more clarity and fairness of financial reports. In our case we have considered higher score for the firms with Big4 auditors which include PwC, Deloitte, KPMG and EY. We expect firms with Big4 auditors would have higher audit quality. It has already been mentioned in section 1, that in India, there are a good number of small and medium firms who have big4 auditors. We expect a negative relation with auditor's quality and DA and a high value of the coefficient too. The auditor's quality has been denoted by BIGAUDR variable in our study.

4.2 The Regression Model with Enter Method

(a) Method

We have used pooled regression with enter method with the absolute value of DA as the dependent variable which is denoted as DAMOD and the five independent variable mentioned in section 4.1. The regression may be expressed with the following equation

$$DAMOD = \beta_0 + \beta_1 * (TDEBTN) + \beta_2 * (IHPP) + \beta_3 * (ESOP) + \beta_4 * (INDRCTR) + \beta_5 * (BIGAUDR) + \varepsilon \dots \dots \dots \text{equation (v)}$$

(b) Summary of Variables

The summary of the variables appears in Table 5. And the correlation among variables are given in Table. 6.

Table 4: Descriptives of Model Variables

	Mean	Std. Deviation	N
Damod	.112283	.1212064	322
Tdebtn	.148062	.3321812	322
Ihpp	.308952	.1396364	322
Indrctr	.41	.235	322
Source: Output from SPSS			

As the other variables have scores 0 and 1, they have been excluded from the summary. The table shows acceptable levels of correlations (Pearson's measure) with their significance scores. The correlations are within acceptable ranges.

Table 5: Correlations

		Damod	Tdebtn	Ihpp	Indrctr
Pearson Correlation	Damod	1.000	.234	-.274	.096
	Tdebtn	.234	1.000	-.020	.090
	Ihpp	-.274	-.020	1.000	.106
	Indrctr	.096	.090	.106	1.000
Sig. (1-tailed)	Damod	.	.000	.000	.043
	Tdebtn	.000	.	.359	.053
	Ihpp	.000	.359	.	.029
	Indrctr	.043	.053	.029	.

Source: Output from SPSS

(c) Result of the Regression

The R^2 value of the regression is 45.3 percent while the adjusted R^2 is 20.6 percent. The value of change in F is 15.726 and the significance of F score is .000. The coefficients of IHPP and BIGAUDR are negative as expected and the coefficient of TDEBTN is positive which is also as expected as described in section 4.1. As the results show, ESOP has a negative value of coefficient which is contradictory to our expectation. INDRCTR also has a positive value of the coefficient which does not second our expectation. The intercept is significant at 100% level. TDEBTN is acceptable at 90% confidence level. IHPP is acceptable at 99% confidence level and INDRCTR is at 90%. The significance value of ESOP is .885 which cannot be called as significant at all. BIGAUDR is accepted at 100% confidence level. The result summary is given in Table 7 while the relationship of the dependent variable with the residuals are shown in Figure 2. VIF values of all the variables are under 10 which makes them acceptable.

Table 6: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	.180	.018		9.974	.000	.145	.216		
Tdebtn	.053	.019	.143	2.785	.006	.016	.090	.988	1.012
IHPP	-.157	.047	-.187	-3.325	.001	-.249	-.064	.823	1.215
Indrctr	.047	.026	.094	1.809	.071	-.004	.098	.965	1.037
ESOP	-.002	.013	-.008	-.145	.885	-.027	.024	.919	1.088
Bigaudr	-.076	.013	-.309	-5.691	.000	-.102	-.050	.888	1.126

a. Dependent Variable: DAMOD

Source: Output from SPSS

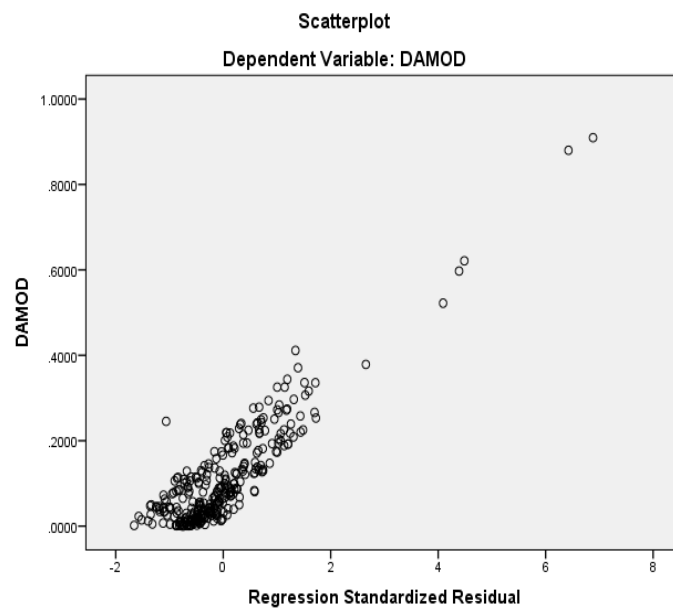


Figure 4: Residual Plot with Damod.

4.3 Stepwise Regression

To justify inclusion or exclusion of variables in the final acceptable model, we have experimented with the stepwise regression method. It showed the repeated regression stepwise with one, two and three variables which could generate best goodness of fit. The summary of this is presented in Table 8.

Table 8: Stepwise Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	.169	.010		16.498	.000	.149	.189		
Bigaudr	-.094	.013	-.382	-7.256	.000	-.119	-.068	1.000	1.000
2 (Constant)	.206	.015		13.480	.000	.176	.236		
Bigaudr	-.080	.013	-.325	-5.920	.000	-.106	-.053	.895	1.118
IHPP	-.148	.046	-.177	-3.226	.001	-.238	-.058	.895	1.118
3 (Constant)	.196	.015		12.733	.000	.166	.227		
Bigaudr	-.077	.013	-.313	-5.769	.000	-.103	-.051	.890	1.123
IHPP	-.149	.045	-.178	-3.279	.001	-.238	-.059	.895	1.118
TDEBTN	.056	.019	.151	2.934	.004	.018	.093	.995	1.005

a. Dependent Variable: DAMOD

Source: Output from SPSS

Stepwise results shows that all variables in iterations 1 and 2 are highly significant and are accepted at 100% confidence levels while in iteration 3, IHPP is accepted at 99% confidence level and TDEBTN is acceptable at 95% level. Though the iteration 3 is more acceptable in terms of highly significant variables, but the adjusted R^2 value is 18% which is lower than the output generated in the 'enter' method (20%). Moreover the stepwise regression shows 80% fall in the F value between solution 2 and solution 1. Addition of one more variable reduced the F value by 20% more. So we would include one more variable namely INDRCTR in our final model and would exclude ESOP. Table 9 shows the summary of

stepwise regression. However the stepwise method reveals that BIGAUDR is the most important variable in prediction of earnings management with a F value of 52.653. The combination of BIGAUDR and IHPP is the next most important combination with increase in F value of 10.404. The combination of BIGAUDR, IHPP and TDEBTN is the third most important combination with an increase of F value of 8.608.

Table 8: Stepwise Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.382 ^a	.146	.143	.1101544	.146	52.653	1	308	.000
2	.417 ^b	.174	.169	.1085103	.028	10.404	1	307	.001
3	.443 ^c	.197	.189	.1071903	.023	8.608	1	306	.004

Source: Output from SPSS

4.4 The Final Model

The final model after considering the results of ‘enter’ and ‘stepwise’ methods is given in equation (vi) and (vii).

$$DAMOD = \beta_0 + \beta_1 * (TDEBTN) + \beta_2 * (IHPP) + \beta_3 * (INDRCTR) + \beta_4 * (BIGAUDR) + \varepsilon \dots \dots \dots \text{equation (vi)}$$

$$DAMOD = .180 + .053 * (TDEBTN) - .157 * (IHPP) + .047 * (INDRCTR) - .076 * (BIGAUDR) + \varepsilon \dots \dots \dots \text{equation (vii)}$$

5. CONCLUSIONS AND DISCUSSIONS

The results as described in section 4 have helped us to draw some important inferences about earnings management and the influence of the model variables under observation. It is noteworthy that the mean DA is the sample firms which are of small and medium category, is.112283. Mean DA of all the big firms in India, which are placed in the major indices is.064288 (Dhar *et al*, 2020). So, the existence of earnings management in small and medium firms in India is substantial. From the analysis presented in the above sections, the following points are worth mentioning.

- Auditor is the most important factor which has a major influence on the level of earnings management. The big4 auditors as expected would ensure better audit and disclosure quality which on the other hand, would minimize the scope of managers to construct accruals at discretion. So quality and reputation of auditors reduce earnings management.
- Institutional holding plays a major role as a deterrent to earnings management. The FIIs and DIIs would always have their nominee directors in the board to oversee the financial affairs and to analyze the reporting aspects. This would certainly reduce the greener pasture of the insiders and consequently earnings management would reduce.
- Bank financing and earnings management in small and medium firms seem to be proportionally related. Most of the firms who belong to these category, may often require business loans and working capital financing. Expectedly there may be income inflating earnings management in such firms. The results of our study provides conclusive evidence that in small and medium firms, earnings management and bank loans go hand in hand.
- Independent directors, in small and medium firms do not contribute towards controlling earnings management. In addition to that there may be enough scope of opportunistic earnings management by them as well.

- ESOPs are not at all a significant factor in case of small and medium firms for controlling earnings management. This may be due to the fact that a small proportion of these firms actually offer ESOP and quantum of that also may not be very significant. Our study results do not consider ESOP connected with earnings management.
- Auditor's reputation is the most important determinant in case of earnings management in small and medium firms in India. This is followed by institutional holding and again followed by the level of bank loan.
- **As a limitation.** we must mention that we have used Jones Model only depending upon our constraint of access to availability of some data. The same model may be tested in future with modified Jones model and also with earnings quality.

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